UNIVERSITY OF SWAZILAND

DEPARTMENT OF STATISTICS AND DEMOGRAPHY

SUPPLEMENTARY EXAMINATION PAPER 2015

TITLE OF PAPER   :   INTRODUCTION TO DEMOGRAPHY

COURSE CODE   :   DEM 101

TIME ALLOWED   :   TWO (2) HOURS

INSTRUCTIONS   :   ANSWER ALL QUESTIONS;
                                      SHOW ALL YOUR WORKINGS WHERE
                                      APPLICABLE.

REQUIREMENTS   :   CALCULATOR

THIS PAPER SHOULD NOT BE OPENED UNTIL PERMISSION HAS BEEN
GRANTED BY THE INVIGILATOR

Question 1 [Total=25 marks]

You are provided with information in Table 1 together with supplementary data for a certain Country Y in Africa in 1998.

Table 1: Mid-year female population and live births by maternal age, 1998

Age Group	Females	Age-specific fertility rate
15-19	77844	0.0825
20-24	64760	0.1931
25-29	53464	0.1905
30-34	40074	0.1714
35-39	34193	0.126
40-44	26600	0.0655
45-49	24364	0.0361

Additional demographic data on Country Y, 1999

General sex ratio	89.5
Female total population	359480
Infant deaths	4256
Maternal deaths	42
Still births	1450

Using the data provided above, answer the following questions:

a. Calculate the crude birth rate and interpret your answer; [11]

b. Calculate the total fertility rate and interpret your answer; [3]

c. Calculate the general fertility rate; [3]

d. Calculate the infant mortality rate and explain your answer; and [4]

e. Calculate the maternal mortality rate and interpret your answer. [4]

Question 2 [Total=25 marks]

Distinguish fully between the following demographic concepts and measures:

a. Rate and probability in demography; [3]

b. General fertility rate and total fertility rate; [4]

c. Prevalence rate and incidence rate; [4]

d. Maternal mortality rate and maternal mortality ratio; [4]

e. Coverage error and content error; and [4]

f. Dejure census count and defacto census count; [6]

Question 3 [Total=25 marks]

a. Briefly explain why migration is more difficult to conceptualize and measure than the other components of population change. [9]

b. Outline four reasons why age is an important demographic variable. [8]

c. Briefly describe the following models of population growth:

    i. Arithmetic growth; and [4]

    ii. Exponential growth. [4]